with that of the latter, Mr. Michael writes me: "Riley was not an acarologist, and his descriptions and drawings of Acari cannot ever be relied on for small differences between closely allied species. Your specimens naturally had not any adult Hydrachna on it, but so far as I could judge from Riley's drawings and very imperfect descriptions of the larva, it seems to agree well in all its stages with your specimens. The water-mites, when parasitic, do not usually confine themselves to a single host, but are often found on several species; and the geographical distribution of Acari is usually very wide, often astonishingly so. Riley says that his species is particularly common on Zaitha fluminea (Say)<sup>\*\*</sup> = Perthostoma aurantiaca, Leidy" (in litt. 29 Jan. 1901).

G. W. K.

### MISCELLANEA RHYNOHOTALIA.

### By G. W. KIRKALDY, F.E.S.

### Fam. Miridæ.

#### AUSTROCAPSUS, gen. nov.

Belonging to Capsaria, Reut., and allied to Hyalopeplus, Stål.

Head subtriaugular, wider with eyes than the anterior margin of pronotum; tylus broad, declivous; interior margin of eyes subsinuately convex; first segment of antennæ stout, its length equalling that of the median line of the head from base of the head to base of tylus. Pronotum distinctly collared, the collar anteriorly straight, posteriorly somewhat deeply (comparatively) convex. Pronotum raised posteriorly, anteriorly callous on each side behind the collar, very rugose transversely, widely somewhat sinuately rounded posteriorly, lateral margins subsinuate. Scutellum transversely impressed near the base. Interior cell of membrane very large.

The other characters are those of the division as signalized by Reuter in the fifth volume of the 'Hemiptera Gymnocerata Europæ.'

# Type A. MARTIGENA, sp. nov,

Head yellowish; two thin median longitudinal lines from whichbranch off obliquely six or seven lines on each side, first segment of antennæ blood-red; eyes dark blood-red. Pronotum and scutellum yellowish, very closely rugose and marked with blood-red. Elytra (including membranal nervures), abdomen above, and beneath, bloodred. Wings and membrane infuscate. Head beneath, sterna and femora yellowish with bright blood-red subparallel sinuate lines.

Though the ground colour is really yellowish, it is so closely marked with blood-red that the general effect is that of the latter colour. The pubescence is scanty, and is pale golden yellow. Length  $6\frac{1}{4}$  mill.

WEST AUSTRALIA, Perth (my collection).

\* Now known as Belostoma fluminea, Say.

### \* Fam. Gerridæ.

## 2. GERRIS ANADYOMENE, Sp. nov.

Belongs to subgenus Limnometra, Mayr.

Flavous; head with an irregular diamond and two lateral stripes, pronotum with a median and two sublateral lines, irregular markings on ambulacra, &c., black. Elytra dark greyish fulvous; nervures fulvous, apically, darker. Spines of seventh segment extending beyond apex of abdomen, elytra extending far beyond apex of abdomen. Male: seventh segment deeply, roundly emarginate ventrally. Long. to apex of elytra 14 mill.

CEYLON, Pundaluoya. Collns. E. E. Green and Kirkaldy.

Larger and stouter than *minuta* (Mayr.), to which it is somewhat allied.

### 3. GERRIS SAKUNTALA, Sp. n.

Belongs to subgenus Limnometra, Mayr.

Black, closely set with pale golden pubescence; a central line on head and anterior lobe of pronotum, lateral margins of posterior lobe, antennæ, legs. &c., fulvous. Elytra infuscate, nervures pale golden, pubescent. Venter pale flavous, Elytra extending far beyond apex of abdomen. Long.  $5\frac{1}{2}$  mill.

CEYLON, Pundaluoya (collns. E. E. Green and Kirkaldy).

This lovely little *Gerris* is quite distinct in colouring from any other *Limnometra*, and is specially distinguished by the entire absence of any connexival spines.

### THE STUDY OF LIFE-HISTORY.

(Concluded from p. 97.)

In studying the habits of living insects instead of too closely confining our observations to captive specimens, we should, when practicable, contrive to give at the same time constant attention to the same species existing in a state of nature; for the circumstance must never be overlooked, that it matters not how cunningly we may endeavour to conceal the fact, nor how diligently we may attend to food supply and other details, our types are nevertheless living under purely artificial conditions. Captive insects will teach us much, and will more often than not prove the source from whence most of our information is gleaned, but we should still regard them more in the light of qualified teachers or guides whose principal usefulness lies in the furnishing us with valuable hints aud data upon which to base and work out our study of their species in the open, rather than as the sole origin from which our knowledge is to be derived. It is in all probability

\* These species will be treated more fully and figured in another place.